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EXAMINER

BROADHEAD, BRIAN J

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/750,189  
Filing Date: December 30, 2003  
Appellant(s): FERREN ET AL.

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Michael A. Glenn  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed January 11, 2008 appealing from the Office action mailed February 22, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,421,593	KEMPEN ET AL.	7-2002
6,547,506	JACOB	4-2003

5,785,372

GLATZMEIER ET AL.

7-1998

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3-6, 8, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kempen et al., 6421593, in view of Jacob, 6547506.

As per claim 1, Kempen et al. disclose a standardized vehicle platform (1417); a plurality of fixation sites along said platform (1681, 1682), said fixation sites comprising standardized interconnection means for any of mechanical, electrical, and fluid interconnection with any one or more of a plurality of specialized functional modules that are readily attached to said standardized platform via said interconnection means, said fixation sites being located along said vehicle platform at standardized intervals to accept one or more of said modules on lines 2-15, on column 29; and a computer implemented control and communications protocol communicatively provided throughout said platform for recognizing any of a module's presence, identity, capability, and function, and for configuring said vehicle accordingly on lines 15-38, on column 29. Kempen et al. do not disclose said fixation sites defining fractional locations along an overall platform extent, wherein said platform receives a plurality of said modules, wherein said modules have an extent that is equal to, or that is a fraction of, said platform extent, and wherein any number of modules having a total, combined extent that is less than or equal to the extent of said platform may be attached to said platform at any given time; at least two modules, each module providing a unique function, each module comprising a standardized fraction of the total area of the platforms, said

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modules when affixed to said platform comprising in combination a vehicle suited for a particular use, said modules having fixation means that are located along said modules at intervals that coincide with at least a portion of the fixation sites of said platform.

Jacob teaches said fixation sites defining fractional locations along an overall platform extent, wherein said platform receives a plurality of said modules, wherein said modules have an extent that is equal to, or that is a fraction of, said platform extent, and wherein any number of modules having a total, combined extent that is less than or equal to the extent of said platform may be attached to said platform at any given time in figures 3 and 4, and lines 33-37, on column 3; at least two modules, each module providing a unique function, each module comprising a standardized fraction of the total area of the platforms, said modules when affixed to said platform comprising in combination a vehicle suited for a particular use, said modules having fixation means that are located along said modules at intervals that coincide with at least a portion of the fixation sites of said platform in figures 3 and 4 and items 110, 50, 74, and 76. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the smaller and plural modules of Jacob because such modification would allow municipalities to make better use of their investment in the multi-task truck. Or in other words, the invention would reduce costs by re-using one chassis to do several different tasks which would reduce capital costs for the municipalities or customers.

As per claims 3, 4, and 5, Kempen et al. disclose a dedicated path about said platform for effecting individual module control (1460); a computer implemented vehicle operating system for controlling said modules (1511); a plurality of custom interfaces

(31,32,33) for any of contact closures, lighting, power, control, and interface to computers on board one or more of said modules.

As per claim 6, Kempen et al. disclose means for recognizing said modules personality on lines 15-38, on column 29.

As per claims 8, and 14, Kempen et al. disclose means for controlling vehicle operation and configuration, both in accordance with a current vehicle complement of said modules and in accordance with vehicle resources and performance specifications on lines 26-37, on column 16; and means for acknowledging each module, and for performing a background calculation for any of module weight, balance, and power consumption on lines 14-38, on column 29.

Claims 15,16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kempen et al., 6421593, in view of Glatzmeier et al., 5785372.

As per claims 15, and 16, Kempen et al. al disclose a standardized vehicle platform (1417); a plurality of fixation sites along said platform (1681, 1682), said fixation sites comprising standardized interconnection means for any of mechanical, electrical, and fluid interconnection with any one or more of a plurality of specialized functional modules that are readily attached to said standardized platform via said interconnection means, said fixation sites being located along said vehicle platform at standardized intervals to accept one or more of said modules on lines 2-15, on column 29; and a computer implemented control and communications protocol communicatively provided throughout said platform for recognizing any of a module's presence, identity, capability, and function, and for configuring said vehicle accordingly on lines 15-38, on

column 29. Kempen et al. do not disclose said fixation sites defining fractional locations along an overall platform extent, wherein said platform receives a plurality of said modules, wherein said modules have an extent that is equal to, or that is a fraction of, said platform extent, and wherein any number of modules having a total, combined extent that is less than or equal to the extent of said platform may be attached to said platform at any given time. Glatzmeier et al. teach said fixation sites defining fractional locations along an overall platform extent, wherein said platform receives a plurality of said modules, wherein said modules have an extent that is equal to, or that is a fraction of, said platform extent, and wherein any number of modules having a total, combined extent that is less than or equal to the extent of said platform may be attached to said platform at any given time in figures 1 and 2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the smaller and plural modules of Glatzmeier et al. because such modification would provide rapid and free assembly of variously fitted equipment cabs...due to rapidly-changing conditions of use, as stated on lines 20-28, on column 1, of Glatzmeier et al.

As per claims 18, Kempen et al. disclose means for any of assessing any of module weight, power consumption, size, and functionality; determining whether a complement of modules fit within design limits of said platform; and dynamically configuring a user interface to express functionality of each of said modules installed on said platform on lines 15-38, on column 29.

#### **(10) Response to Argument**

##### **Claims 1, 3-6, 8, and 14**

Appellant's arguments begin on page 14 of the brief by arguing in the second paragraph that somehow Kempen's variant module cannot be considered the same as the module of the current invention. Appellant seems to be stating that the only comparable modules are the interface modules of Kempen. Applicant finishes the argument by stating "a person of ordinary skill in the art would recognize the challenges associated with creating a common chassis and control system to support the distinct differences between the functions of these types of vehicles." It is not really clear what point Appellant is trying to make. Kempen discloses a vehicle that can be changed by placing various variant modules on a chassis so the vehicle can perform different functions. Kempen clearly refers to these variant modules as modules. Since the modules can be exchanged with each other is very hard to understand how Appellant is arguing that Kempen lacks the modularity of the current invention. Appellant may want to interpret the Kempen reference differently, but the interpretation currently used in the rejection is proper and Appellant has failed to show how the variant modules of Kempen aren't modules that provide modularity.

The arguments continue on page 15 of the brief with the Appellant attacking the references individually instead of what the combination teaches. While Kempen only teaches using one variant modules at a time, the secondary reference is cited for teaching multiple modules.

Appellant also argues that the fixation sites in the current invention are different than what is cited in the reference. Again, in attacking the references individually, Appellant misses what the combination of references teaches. Kempen does teach

multiple attachment points, but these attachment points are not for multiple modules. The secondary reference of Jacob is cited for teaching the multiple attachment points for multiple modules. In the second paragraph of page 16 of the brief Appellant also mischaracterizes what is claimed. Appellant makes the argument that individual mechanical, fluid, and electrical connectors are needed for each module. However, in reading claim one, the language used is “interconnection means for any of mechanical, electrical, and fluid connection.” This language does not require all of those types, just any one of the three.

In addressing the secondary reference of Jacob Appellant has not recognized the full teachings of Jacobs. Appellant argues that only the bins of Jacob are modules and ignores the other teachings that were noted in the remarks of the Advisory action of 6-20-07. As noted then, Jacobs also disclosed that the modules can include vacuum pump (74), vacuum tank (76), and backhoe (110). Jacobs also teaches that these components can also be individually attached at their own attachment points on lines 32-37, on column 3. Appellant again argues that the “bins” don’t have fluid or electrical connections even though that is not required by the claims. Even if it were required, Kempen’s much more complex modules provided for these other connections.

Finally, Appellant argues that there is not motivation to combine the two references. This is not convincing because Jacobs teaches of the desirability of being able to use one truck for multiple functions and would allow municipalities or others to make better use of the investments. Kempen already discloses the benefits of modularity. Taking it one step further by using more modularity is clearly within the

ordinary skill in the art and has no unexpected results. The idea of modularity in vehicles has been around for ages. One simply has to look at the standard pallet size used in tractor trailers as an example, or the various tool box attachments available for pickup trucks.

**Claims 15, 16, and 18**

In arguing the rejection of claims 15, 16, and 18 Appellant relies on the arguments presented for the first rejection and those arguments are not convincing for the reasons set forth above. The arguments with respect to the secondary of Glatzmeier are not convincing because Appellant has not acknowledged how the reference has been applied. Glatzmeier is cited for providing a box structure that is cited for showing the attachment points, not the modules themselves as Appellant has set forth. Again, as noted in the advisory action mailed 6-20-07, it is pointed out that the box structure is the fixation sites and the modules are the generator unit (49) or other equipment mentioned on lines 62-67, on column 8. These modules are removable and replaceable depending on the vehicle's purpose. Again, Glatzmeier is not cited for teaching the fluid and electrical connections because these are provided by Kempen.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Brian J. Broadhead /BJB/

Conferees:

Khoi H. Tran /KHT/

Meredith C. Petravick /mcp/